

Atlas. It is No. 84 (*Centaurus*) in the Catalogue, where it is rated 4·5 mag., but has no letter attached to it. Al-Sufi's magnitude is also 4·5. Al-Sufi's 6th star is θ .

Lupus.—With reference to two stars described by Al-Sufi (p. 246) south of α *Lupi*, and which Al-Sufi says are not mentioned by Ptolemy, Schjellerup remarks in a foot-note, "Probablement a_2 and a_1 ." I cannot find what stars a_1 and a_2 are, but the stars referred to by Al-Sufi are very evidently ρ and σ *Lupi*, rated 5 mag. by Behrmann.

16th and 17th stars.—Schjellerup makes the 16th star λ ; but as λ is the 6th star, this cannot be λ . He does not identify the 17th. From what Al-Sufi says, the 16th and 17th stars are very evidently χ and ξ *Lupi* (5–6 mag. Behrmann).

18th and 19th stars.—Schjellerup makes the 18th δ *Lupi*; but δ is the 3rd star. He does not identify the 19th. These stars seem to be 1 and 2 *Lupi* in Proctor's Atlas (30 and 33 Behrmann, *Lupus*).

Corona Australis, 7th star.—Schjellerup makes this κ ; but this is evidently wrong. The star is clearly α , for Al-Sufi says, "La 7^e se trouve au-dessus et près de la 6^e [β] vers le nord."

10th star.—This Schjellerup does not identify, but it is probably 20 Behrmann (= 6444 B.A.C.).

13th star.—Schjellerup calls this ξ ; but in Behrmann's Southern Atlas there is no star which exactly suits Al-Sufi's description, the nearest being Behrmann's No. 8. But this is only 1° south of κ , instead of 3° 30' ("une coudée et demie") as stated by Al-Sufi.

I will conclude with a remark made by Peirce (*Harvard Annals*, vol. ix. p. 51), and which I fully endorse:—"The work which the learning of M. Schjellerup has brought to light is so important that the smallest errors of details become interesting."

The Variability of β Cygni and 63 Cygni.

By the Rev. T. E. Espin, B.A.

It has doubtless escaped Professor Pritchard that the star β *Cygni* has long been suspected of variation. It will be found entered as a suspected variable in *Chambers' Astronomy*, where the authority for its variation is Klein, and in the catalogue of 343 suspected variable stars published in the *English Mechanic* (communication No. III., June 21, 1882), where the authorities are Klein and Webb. A letter of the Rev. Prebendary Webb in the same periodical calls attention to the loss of light of late in this star. β *Cygni* belongs to a class of variable stars which seem quite distinct from the ordinary variables of Class I. and Class II. (*i.e.* stars with periods of less than 80 days and slight variation, and stars with periods above 130 days and great variation). The variation of β *Cygni* is not large—probably less than a magnitude—while the period is one of several years.

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A remarkable instance of this class of variable star is No. 140 of the same catalogue, Flamsteed's 63 *Cygni*, R.A. 21^h 2^m + 47° 10'. In January 1878 it was about 6.0 magnitude. With the exception of a slight fluctuation or two it increased in light till, in November 1881, its magnitude was 4.7. On May 4, 1882, it was as bright, but on August 8 it seemed to have lost light, and on August 11 it was about 5.0 magnitude. On January 15, 1883, it had fallen to 5.6, since which it has increased in light, and is now (February 14, 1883) about 5.1. The comparison stars are :—

5 Ursæ Minoris	...	...	4.5
4 "	...	...	5.0
59 Cygni	...	...	5.3
53 "	...	...	5.7

The period from minimum to minimum is thus about five years, and the observed variation max. 4.7 ± min. 6.0 ±. If β *Cygni* be a variable of this class the difference between the Harvard and Oxford photometric measures is at once accounted for. It seems impossible to imagine so great an error as half a magnitude in the measures of the former.

West Kirby, Birkenhead :
1883, Feb. 15.

Sur l'observation du Passage de Vénus faite à l'Observatoire de Moncalieri. Par F. Denza.

(Communicated by the Secretaries.)

J'ai vu dans les *Monthly Notices* de la Société Royale d'Astronomie que ma courte relation sur les observations du passage de Vénus faite dans cet Observatoire de Moncalieri a été prise en considération.

Comme la publication de ma relation subit encore quelque retard, et désirant mettre la Commission en état de mieux apprécier la valeur du temps assigné pour le premier contact extérieur, je crois opportun de vous communiquer la circonstance suivante, qui, à mon avis, est importante, afin de vouloir la transmettre à la Commission. Elle est extraite de la Note que j'ai présentée à l'Académie Royale des Sciences de Milan.

“ Pendant que je m'appliquais avec la plus grande tension des yeux, à saisir l'instant du contact extérieur, chose fort difficile dans nos conditions, je vis apparaître, un peu avant l'observation du contact extérieur, à peu près une minute et demie ou deux minutes, sur le fond clair du ciel près du Soleil et un peu plus haut que le point fixé (45° du Nord à l'Est), comme une ombre ou une tache noirâtre, sur laquelle je fixai aussitôt mon regard, et que j'observai jusqu'à ce qu'elle s'approchât du Soleil.